



BOUCHIE-MILBURN COMMUNITY PLANNING TEAM

% 2338 Bonny Road, Bouchie Lake, BC, V2J 7G6

E: BMCommunityPlan@gmail.com

Safety Committee Meeting July 7, 2020, 7 pm - 8:30 pm

Chaired By : n/a

Submitted by: Heloise Dixon-Warren, Tier 1, BMCPT Member

Meeting opened at 7 pm

Venue: Bouchie Lake Country Store

Committee Members: Heloise Dixon-Warren, Leslie Holland, Ted Traer, Bob Ross, Ryan Keis, Dan Aussant

Guests: Brian Chen, Fisheries Biologist (Kamloops) - on the phone

Actions:

Habitat Conservation Trust Foundation: Dan to contact

Types of projects they fund?

Triggers to access funding?

Mechanism to get things on the list?

Russ Bobrowski - Heloise to contact; invite him to a meeting

Cost Benefit Analysis - Russ Bobrowski (WL lakes, Bouchie??)

Infrastructure Grants - ?????; septics

Health concerns - contact Northern Health; Bob and Elaine to ask about health issues pertaining to BG algae (Lynnette Winsor, Environmental Health Officer)

Establishing a Tax Function for Aeration system mgmt. and operation

Mission Statement

To bring Bouchie-Milburn community residents together as involved members of the Community Planning Team.

The Team will have a collaborative voice in planning, organizing, implementing any, and all, community development and initiatives, that the either promote or hinder the growth of our immediate area. This grassroots team will work together to promote growth, inclusion, transparency, and non-partisan community involvement.

Adopted by the Bouchie-Milburn Community Planning Team, June 26, 2018



BOUCHIE-MILBURN COMMUNITY PLANNING TEAM

% 2338 Bonny Road, Bouchie Lake, BC, V2J 7G6

E: BMCommunityPlan@gmail.com

General Notes from Discussion with Brian:

Permits and \$\$ to do Aeration

Brian would like some background info. On Bouchie Lake

Inlet Streams / Outlet Streams - seasonally flowing or flowing year round??

When did Algal (blue-green) Blooms start on the lake?

Turn the clock on 1980 - was BL crystal

63 residences on the lake

1970 - there was 10

Everyone on septic systems? Yes

Cattle up stream? - not an extensive amount

Where do residents get their drinking water - dug wells, drilled wells, some people take water from the lake for domestic purposes

Big piece of water; Brian has never been to BL; 128 ha.; (over 300 surface acres); big piece of water; maximum depth of 24'; it is quite shallow; nutrient coming in from the lake through

seepage from septic field and agricultural uses upstream; watershed has quite abit of timber harvesting over the years - don't have a mature forest to absorb nutrients; high rainfall / snowmelt - all nutrients flushing into the lake; no vegetation to absorb nutrients

Ecology of the lake has changed over the last 40-50 years.

Fish kills - ??; summer fish kill

Not a significant winter kill (ice comes off and there are fish carcasses on the lake)

BL is a eutrophic lake; like many other natural BC lakes

Macro-phytic plant growth; increase in amt. of aquatic vegetation; Flowering rush - invasive aquatic plant (3 different summers when MoE has done a removal of Flowering Rush);

Lily pads in the lake - yes

Why do you want to consider aeration for the lake?

Bob - Aeration and Microbes; reduce the sludge in the lake; control growth of blue green algae

Article - BC Outdoors about lake Aeration: Hypolimnetic Aeration (it must be a deeper water body than Bouchie); Destratification Type System; diffuser that bubbles up through the water; air- water interchange; increase amount of O₂ in the water; used late fall and into the winter

Mission Statement

To bring Bouchie-Milburn community residents together as involved members of the Community Planning Team.

The Team will have a collaborative voice in planning, organizing, implementing any, and all, community development and initiatives, that the either promote or hinder the growth of our immediate area. This grassroots team will work together to promote growth, inclusion, transparency, and non-partisan community involvement.

Adopted by the Bouchie-Milburn Community Planning Team, June 26, 2018



BOUCHIE-MILBURN COMMUNITY PLANNING TEAM

% 2338 Bonny Road, Bouchie Lake, BC, V2J 7G6

E: BMCommunityPlan@gmail.com

months; Anaerobic decomposition happening in the water (plants die off over the winter; attributing to the removal of O₂ through the decomposition process); summer - Blue algal blooms; during the day time the blue algal cells take in CO₂ and add O₂ to the water; at night, they respire O₂ and give off CO₂; partial summer kill - shallower areas of the lake, at night, fish suffocate due to lack of O₂ (summer kill); O₂ is taken from the water due to Blue Green Algae

Lake Aeration in BC: all initiated by provincial fisheries programme (FLNRORD); developed a plan and proposal to aerate these lakes; stratification aeration (diffuser on the shore); FLNRORD applies for funding through the Habitat Conservation Trust Foundation (\$\$\$ raised through Fishing Fees / Hunting Licenses); Capital and operational costs; HCTF is the avenue to fund aeration on public waters in BC; need to work with fisheries programme in WL;

Small Lakes biologist - Russ Bobrowski

Bouchie Lake - living ecosystem; would need routine treatments on regular basis to reduce the BG algal blooms; fighting with Mother Nature

Bouchie lake is classified as "Eutrophic lake"; best fishing lakes are eutrophic; so much dissolved solids and key nutrients (calcium and phosphorus); each year, Bouchie lake is getting shallower and shallower; over a course of several 100 years, Bouchie Lake will become a wet meadow, meadow and then it will disappear; each year, it is getting shallower; natural ecological process; accelerated by homes being on the lake, septic tanks, agricultural production, timber production, etc.

\$25,000 - \$40,000 - range for a destratification system; fall and winter time; running such a system during the summer could cause nutrients to be brought up from the depths of the group 6 lakes in the Kamloops Area -

Most lakes that are aerated are not populated with residential houses

All of the aeration systems in the province are an attempt to sustain the lakes for trout; aeration system is improving the water quality of the lake; aeration slows down the natural processes of eutrophication; slowly improves the water quality of the

Trigger that determines a lake is aerated or not? Partial summer / winter kills; full kills; kills that are more significant; water chemistry done - temperature and O₂ profiles; data collected to determine the biology of the lake

Recommendation:

Mission Statement

To bring Bouchie-Milburn community residents together as involved members of the Community Planning Team.

The Team will have a collaborative voice in planning, organizing, implementing any, and all, community development and initiatives, that either promote or hinder the growth of our immediate area. This grassroots team will work together to promote growth, inclusion, transparency, and non-partisan community involvement.

Adopted by the Bouchie-Milburn Community Planning Team, June 26, 2018



BOUCHIE-MILBURN COMMUNITY PLANNING TEAM

% 2338 Bonny Road, Bouchie Lake, BC, V2J 7G6

E: BMCommunityPlan@gmail.com

Limnology done on the lake - regular water sampling

Provincial Lake Stewardship Group

Invite Small Lakes Biologist and have the discussion

Cost Benefit Analysis - # of Anglers on the Lake

Angler Days??? On Bouchie Lake???

Northern Health - interest in BG algae?; cardio-arrest (heart attack) induced through ingesting decomposing BG algae; BG algal blooms common in the interior; human health concern; muddy trout taste - BG algal blooms

Infrastructure Grant - cost share; incentive; (Federal / Provincial)

North Cariboo JPC / Sub-Regional Recreation \$\$\$?

Habitat Conservation Trust Foundation

Meeting adjourned: 8:30 pm

Mission Statement

To bring Bouchie-Milburn community residents together as involved members of the Community Planning Team.

The Team will have a collaborative voice in planning, organizing, implementing any, and all, community development and initiatives, that the either promote or hinder the growth of our immediate area. This grassroots team will work together to promote growth, inclusion, transparency, and non-partisan community involvement.

Adopted by the Bouchie-Milburn Community Planning Team, June 26, 2018